NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

FENCE (FEET)

CODE 382

DEFINITION

A constructed barrier to manage or control livestock, wildlife, or people.

PURPOSES

This practice may be applied as part of a conservation management system to facilitate the application of conservation practices. Applicable purposes include:

- Facilitate a prescribed grazing plan that improves forage resources and livestock grazing distribution.
- Reduce erosion and improve water quality by controlling livestock access to streams, springs, wetlands, ponds, and waste storage areas.
- Facilitate handling, movement, and feeding of livestock.
- Protect newly planted areas.
- Facilitate wildlife management.

CONDITIONS WHERE PRACTICE APPLIES

This practice may be applied on any area where access management is needed.

CRITERIA

General Criteria Applicable to All Purposes

The type of fence will be designed to meet management objectives and be suitable to the soil conditions and topography of the site. Fence materials shall be of a high quality and durability.

All materials used in the construction of fences shall be new, except as set forth in the specifications. All fences shall have a minimum life expectancy of 10 years, and shall conform to the following minimum requirements:

- **The materials used in construction must be in accordance with, and equal or exceed, in strength and durability, the specifications listed in the Materials and Construction Specification for a fence type.**
- **Height, number, and spacing of wires will be installed to facilitate control and management of the animal(s) and people of concern as described in the Fence Specification.**
- **Consider wildlife movement needs when designing and locating fences.**

All power fences must be grounded to protect humans, animals, wildlife and power fence equipment and materials from lightning. Safety guidelines for each type of fence must be strictly adhered to.

CONSIDERATIONS

Locate new fences to separate major ecological site boundaries, or between different land uses. Rangeland and woodland areas should be fenced separate from introduced pastures to attain more uniform grazing use. Locate fences to create grazing units or pastures of equitable size, where feasible, to facilitate the grazing system.

Exclude livestock from ponds, springs, or other sensitive water sources to protect vegetation around the water source, control livestock access to the source itself, and to improve wildlife habitat.

Avoid exclusion fencing of streams where possible due to high maintenance costs from flood plain debris and water damage to the fence itself.

NRCS, MT
August 2002

Conservation practice standards are reviewed periodically and updated if needed. To obtain the current version of this standard contact the Natural Resources Conservation Service.

NOTE: This type of font **(AaBbCcDdEe 123..)** indicates NRCS National Standards.
This type of font (AaBbCcDdEe 123..) indicates Montana Supplement.

Montana State law prohibits fencing across any navigable waterway.

Design the fence for the appropriate level of protection and time for protection needed. For example, if protection is needed for only one to two years, a temporary power fence may be all that is needed.

Fences should have easy access for construction and maintenance. Power fences require access to a dependable power supply, such as main power line, solar power panel, or easily exchanged batteries. Heavy vegetation and areas of potential blow-down are obstacles to fence installation and maintenance.

Consider soil erosion potential when planning and constructing a fence on steep slopes. Straighter fences reduce cost, but may accelerate erosion from livestock trailing on steeper slopes.

Fences across gullies, canyons, or streams may require special bracing and designs, such as breakaway or swinging watergaps to accommodate heavy seasonal runoff and flash flooding.

Consider livestock watering and feeding needs and behavior when locating fences. Fences can be arranged to allow one livestock water facility to serve two or more fields.

When designing a fence for facilitating handling, movement, and feeding of livestock safety to both livestock and handlers must be considered. Sharp corners should be avoided or padded. Nails and bolt heads should be flush with rails. Rails should be cut flush with the posts to eliminate protruding ends.

Sandy soils will require more braces and closer spacing than firm soils. Rocky soils may require fences built of rock jacks with figure-four posts or straddle jacks. Marshy areas may require the construction of figure-four or straddle jack posts with long flotation boards that keep the fence on top of the marsh.

Areas of light snow usually do not require special fencing designs. However, blown snow will approximate heavy snow conditions and may require special fence designs. Fences exposed to heavy snow require straddle jacks with wire or pole fencing, or worm, block and log, post and pole wood fences, or let-down fences.

It is essential to coordinate planning with anyone who will be affected by the fence. When constructing a fence on private land wildlife migration routes may be disturbed, so wildlife managers should be consulted.

Manufacturer's guidelines should be followed closely during installation of each type of fence to assure that all components are assembled properly.

Additional Considerations for Wildlife

Where possible the fence design should account for safe passage of wildlife. Where deer, elk, or moose are a concern, fences should not be more than 40 inches in height.

Where deer are a concern, 12 to 15 inches of space between the top and second wire will help prevent animals from hooking their back legs between the wires when they jump.

Antelope can generally pass under barbed wire 16 inches above the ground or go over woven wire fence 32 inches in height. Appropriate fence openings can be installed across known antelope trails to facilitate safe crossings.

Flagging the top wire of a new fence will give wildlife a height reference. Leave gates open when the managed area is not in use.

PLANS AND SPECIFICATIONS

Plans and specifications are to be prepared for specific field sites based on the NRCS-Montana Fence Standard, Construction Specifications, and appropriate state or local statutes or laws.

OPERATION AND MAINTENANCE

Regular inspection of fences should be part of an on-going management program. Inspection of fences after storm events is needed to facilitate the function of the intended use of the fence.

Maintenance and repairs will be performed as needed to facilitate the intended operation of the installed fence.

Fence repairs should be made with materials that equal or exceed the quality of the original materials.

Electric fences need to be inspected periodically to remove grasses and tree limbs that are touching the wires.

REFERENCES

Structures and Environment Handbook, MWPS-1, Midwest Plan Service, Eleventh Edition, 1983 revised 1987.

Specifications for Structural Range Improvements, PNG-GTR-250, H. Reed Sanderson, Thomas M. Quigley, Emery E. Swan, and Louis R. Spink, September 1990.

Fences, USDI–Bureau of Land Management and USDA–Forest Service, July 1988.

Planning Fences, American Association for Vocational Instructional Materials, Third Printing, 1997.

Building Fences, American Association for Vocational Instructional Materials, 1974.

Beef Housing and Equipment Handbook, MWPS-6, Midwest Plan Service, Fourth Edition, 1987.

NO INFORMATION